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| 09/760,581  | 01/16/2001  | Yuji Takahashi       | FUJA18.240          | 4305             |
| 26304   | 7590        | 07/13/2004           | EXAMINER            |                  |
| KATTEN MUCHIN ZAVIS ROSENMAN<br>575 MADISON AVENUE<br>NEW YORK, NY 10022-2585 |             |                      | MACE, BRAD THOMAS   |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2663                | 6                |

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/760,581

Applicant(s)

TAKAHASHI, YUJI

Examiner

Brad T. Mace

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-14 is/are rejected.
- 7) ☒ Claim(s) 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because looking at Figure 4, one would not be able to delineate the "means for" quality of references 31, 32 from that of reference 22 (control unit). Therefore it appears that the three reference characters are pointing to the control unit. The same applies to reference 33, appearing to be the same as reference 30 (gateway). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the

description: S28 was not explained in the description of Figure 5. Corrected drawing sheets, or amendment to the specification to add the reference character(s) in the description, are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. Figures 14a, 14b, 15, and 16 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,529,499 ("Doshi et al.").

Regarding claims 1, 11:

6. Doshi et al. discloses the management and control of voice calls in an integrated voice and data service network (lines 55-57, col. 4, voice packets given priority over data packets, thus integrated voice and data service network and management and control of voice call (over data)). Doshi et al. discloses a method and gateways (means for, see Figure 2) discriminating whether or not a packet input to a first gateway (packet circuit gateway) in the integrated network is a voice call packet (lines 44-54, col. 4, provisioning of bandwidth is made at the packet circuit gateway to delay sensitive voice frames or IP packets. In addition the TOS field in the IP packet header distinguishes delay sensitive traffic (voice packets). Hence discriminating a voice call packet at a first gateway). Doshi et al. discloses when the packet is discriminated as a voice call packet from the discrimination step above, whether or not the related voice call packet can be carried over a transmission path based on both an available band of the transmission path to an opposing second gateway (lines 36-40, col. 4, the capacity requirements over each network element (such as gateways) are virtually provisioned within available bandwidth capacity for delay sensitive traffic (voice call packets requirements) and a required band of the related voice call packet (lines 20-28, col. 4, Doshi et al. states that

voice call transport capacity can be easily predicated using standard traffic engineering methods to determine the capacity needed between Packet Circuit Gateways. Specific format variables such as the type of compression used (for the voice packets) determine the network path bandwidth requirements between each pair of Packet Circuit Gateways. Thus using the type of compression used, the required band of the related voice call packet is found). Doshi et al. discloses the transferring of the related voice call packet to the second gateway only when it is decided that it can be carried (lines 40-44, col. 4, the admission/denial of new connected calls is controlled at the Packet Circuit Gateway edge devices. Admission means that it has been decided that the voice call packet can be carried to the second gateway).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 3, 4, 5, 9, 10, 12, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,529,499 ("Doshi et al.") in view of U.S. Patent No. 6,600,735 ("Iwama et al.").

Regarding claims 2, 12:

9. Doshi et al. discloses substantially all the claimed invention above but does not disclose expressly wherein the first or second step as described above is executed by referring to predetermined parameters held in the first gateway.

Iwama et al. discloses a storage device (memory means for holding predetermined parameters) in a first gateway that stores the device status, the traffic information, the bandwidth reservation information, the device attribute, etc. (see references 1702 and 1706 in Figure 8, lines 15-24, col. 13, and lines 24-27, col. 12).

A person of ordinary skill in the art would have been motivated to employ Iwama et al. in Doshi et al. in order to obtain a gateway that has a storage device (memory means) to hold predetermined parameters that are used in the execution of discriminating a voice packet (discriminating means) or in determining whether or not the related voice call packet can be carried over a transmission path based on both an available band of the transmission path to an opposing second gateway and a required band of the related voice call packet (deciding means). At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Iwama et al. with Doshi et al. (collectively Doshi et al.-Iwama et al.) to obtain the invention as specified in claims 1 and 2 and in claims 11 and 12. The suggestion/motivation to do so would have been to allow for multiple ways in discriminating a voice packet or to allow for multiple ways in determining whether or not the related voice call packet can be carried over a transmission path.

Regarding claim 3:

10. Doshi et al. further discloses the parameter may include a TOS value of the packet input to the gateway, where the discrimination of the voice packet is executed based on this parameter (lines 52-57, col. 4). (In addition to the TOS value, it should be noted that Iwama et al. discloses that IP, UDP, TCP protocols (or the like) are needed

for communication through the Internet (lines 65-67, col. 12). Therefore parameters such as IP source address, TCP/IP, RTP, UDP port numbers can also be used to execute the discrimination of voice packets.)

Regarding claim 4:

11. Doshi et al.-Iwama et al. discloses substantially all the claimed modified invention above. However, Doshi et al. does not disclose expressly that the parameter is communication throughput information of the related voice call packet, and the second step is executed based on the parameter.

Iwama et al. further discloses wherein the parameter is communication throughput information of the related voice call packet, and the step of determining whether or not the related voice call packet can be carried over a transmission path is executed based on this parameter (lines 24-35, col. 13).

A person of ordinary skill in the art would have been motivated to employ Iwama et al. in Doshi et al. in order to obtain throughput information as a parameter in deciding whether or not the voice call packet can be carried over a transmission path. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Iwama et al. with Doshi et al. (collectively Doshi et al.-Iwama et al.) to obtain the invention as specified in claims 1, 2, and 4. The suggestion/motivation to do so would have been to use a commonly utilized parameter such as throughput to decide whether or not a voice call packet can be carried over a transmission path.

Regarding claims 5, 14:



12. Doshi et al. further discloses wherein the parameter when executing the discrimination of voice packets, is input into and held at the first gateway in advance (since the TOS value would have to be recognized by the gateway in order to discriminate a voice packet from a data packet, the parameter would have to be input into and held at the first gateway in advance, lines 52-57, col. 4) (Also see the external interface in Iwama et al. Figure 8, between Internet 1508 and line input/output device 1703, between PSTN 1712 and PSTN input/output device 1704, both interfaces leading to the communication control switch 1709, which leads to storage device 1702.).

Regarding claim 9:

13. Doshi et al.-Iwama et al. discloses substantially all the claimed modified invention above. Doshi et al. further discloses the decision of deciding whether or not voice information can be carried over the transmission path is one of whether to permit passage of the voice call packet to the transmission path (line 67, col. 1 through lines 1-3, col. 2) or to restrict passage (line 67, col. 1 through lines 1-3, col. 2). However, Doshi et al. does not disclose expressly to wait for permission for passage.

Iwama et al. discloses to wait for permission for passage (bandwidth reserved and ensured is registered on a time basis, and reserving a communication path using an indicated bandwidth at a predetermined time, lines 3-13, col. 4).

A person of ordinary skill in the art would have been motivated to employ Iwama et al. in Doshi et al. in order to obtain a decision at the second step where to wait for permission for passage of the voice call. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention

pertains to combine Iwama et al. with Doshi et al. (collectively Doshi et al.-Iwama et al.) to obtain the invention as specified in claims 1, and 9. The suggestion/motivation to do so would have been to provide the opportunity to wait for the passage of the voice call should the caller have the desire and time to wait for passage.

Regarding claim 10:

14. Doshi et al.-Iwama et al. discloses substantially all the claimed modified invention above. However, Doshi et al. does not disclose expressly a step of reserving communication, wherein, when the decision at the second step is to wait for permission for passage to the transmission path, the communication is reserved and the voice call packet is transmitted simultaneously with the issuance of the permission for passage.

Iwama et al. further discloses a step of reserving communication, wherein, when the decision at the second step is to wait for permission for passage to the transmission path, the communication is reserved and the voice call packet is transmitted simultaneously with the issuance of the permission for passage (Iwama et al. since the bandwidth is reserved at a predetermined time, when the predetermined time comes about, permission of the voice call is therefore allowed since the necessary bandwidth has been allocated, thus the voice call packet is transmitted simultaneously with the issuance of the permission for passage, lines 3-13, col. 4).

A person of ordinary skill in the art would have been motivated to employ Iwama et al. in Doshi et al. in order to reserve the communication so as to allow for ordered passage of waiting voice calls once the communication becomes free. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the

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art to which the invention pertains to combine Iwama et al. with Doshi et al. (collectively Doshi et al.-Iwama et al.) to obtain the invention as specified in claims 1, 9, and 10. The suggestion/motivation to do so would have been to allow the voice calls that have been waiting longer than others, permission of passage first as soon as the communication becomes free.

15. Claims 6, 7, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doshi et al.- Iwama et al. as applied to claim 2 above, and further in view of U.S. Patent No. 6,600,734 ("Gernert et al.")

Regarding claim 6:

16. Doshi et al.- Iwama et al. discloses substantially all the claimed invention above but does not disclose expressly wherein the parameter, when executing the discrimination of voice packets, is determined by analyzing an information element of the voice call packet when the voice call packet passes the first gateway and this is stored and held in the first gateway.

Gernert et al. discloses that packets will normally contain a flag indicating that the packets contains voice encoded data (lines 34-42, col. 11).

A person of ordinary skill in the art would have been motivated to employ Gernert et al. in Doshi et al.- Iwama et al. in order to obtain voice packets that indicate that the packets containing voice encoded data and to store this information in the gateway so as to recognize this type of voice packet in the future. At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Gernert et al. with Doshi et al.- Iwama et al.

(collectively Doshi et al.- Iwama et al.-Gernert et al.) to obtain the invention as specified in claims 1, 2, and 6. The suggestion/motivation to do so would have been to discriminate voice packets that the gateway had no prior knowledge of so that the voice packets can be transmitted accordingly.

Regarding claims 7, 13:

17. Doshi et al.-Iwama- et al.-Gernert et al. discloses substantially all the claimed modified invention as above. However, Doshi et al.-Iwama et al. does not disclose expressly that the information element is a packet length of the voice call packet, where if it is detected that the packet has a predetermined length, the above information element is added to the stored parameters.

Gernert et al. further discloses wherein the information element is a packet length of the voice call packet, where if it is detected that the packet has a predetermined length, the above information element is added to the stored parameters. (Gernert et al. discloses that these packets will normally contain a header with a flag indicating that the packets contain voice encoded data, thus the addition of a header yields a packet of predetermined length, lines 34-36, col. 11). This can be another parameter that is stored (memory means) and held in the first gateway. In addition, the gateway must be able to analyze the voice packet for the header, thus it must have a unit to analyze this parameter in order for the discriminating means of recognizing voice packets).

A person of ordinary skill in the art would have been motivated to employ Gernert et al. in Doshi et al.- Iwama et al. in order to obtain a parameter such as packet length to store with the other parameters, as another means for determining a voice packet.

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At the time the invention was made, therefore, it would have been obvious to one of ordinary skill in the art to which the invention pertains to combine Gernert et al. with Doshi et al.- Iwama et al. (collectively Doshi et al.- Iwama et al.-Gernert et al.) to obtain the invention as specified in claims 1, 2, 6, and 7 and in claims 11, 12, and 13. The suggestion/motivation to do so would have been to provide a parameter that can be determined and then stored with the other parameters in evaluating a voice packet.

***Allowable Subject Matter***

Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

\*Civanlar et al. discloses a WAN-based gateway

\*Mizuta et al. discloses a voice gateway and route selection

\*Vargo et al. discloses a system and method for real-time data and voice transmission over an Internet network

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad T. Mace whose telephone number is (703)-306-5454. The examiner can normally be reached on M-F, with the exception of every other Friday.

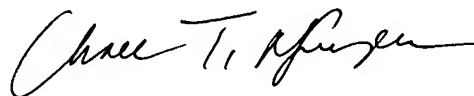
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (703)-305-4798. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

btm

Brad T. Mace  
Examiner  
Art Unit 2663

btm  
July 2, 2004



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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600